

Listing of the Claims:

1. (previously presented) A method of repairing an article affected by sulphidation, comprising the steps of: providing an article having a section affected by sulphidation; removing the affected section; positioning a laser apparatus over the article such that a focal point of said laser is about 0.10 inches to about 1 inch above the affected section and said laser forms a defocused hot zone at a distance above the affected section sufficient to prevent the article from melting; introducing a replacement section material into the defocused hot zone to heat the replacement section material; causing the replacement section material to form a replacement section on the article; heat treating the replacement section; machining excess material from the article; and heat treating the replacement section a second time.
2. (original) The method of claim 1, further comprising the step of removing sulphidation by abrasive cleaning.
3. (cancelled).
4. (cancelled).
5. (original) The method of claim 1, wherein the replacement section is similar in composition to the article
6. (original) The method of claim 1, wherein the article is an airfoil.
7. (original) The method of claim 6, wherein the airfoil is a turbine blade.
8. (original) The method of claim 7, wherein the affected section is a part of a platform of the turbine blade.
9. (original) The method of claim 6, wherein the airfoil is a turbine vane.

10. (previously presented) A method of repairing an article affected by sulphidation, comprising the steps of: providing an article having a section affected by sulphidation; removing the affected section by machining; positioning a laser apparatus over the article such that a focal point of said laser is about 0.10 inches to about 1 inch above the affected section and said laser forms a defocused hot zone at a distance above the affected section sufficient to prevent the article from melting; introducing a replacement section material into the defocused hot zone to heat the replacement section material; causing the replacement section material to form a replacement section on the article; heat treating the replacement section; removing excess material resulting from the replacement section material; and heat treating the replacement section a second time.

11. (original) The method of claim 10, further comprising the step of removing sulphidation by abrasive cleaning.

12. (cancelled).

13. (original) The method of claim 10 wherein the excess material is removed by machining.

14. (original) The method of claim 10, wherein the replacement section is similar in composition to the article

15. (original) The method of claim 10, wherein the article is an airfoil.

16. (original) The method of claim 15, wherein the airfoil is a turbine blade.

17. (original) The method of claim 16, wherein the affected section is a part of a root platform of the turbine blade.

18. (original) The method of claim 15, wherein the airfoil is a turbine vane.

19. (previously presented) A method of repairing an airfoil affected by sulphidation, comprising

the steps of: providing an airfoil having a section affected by sulphidation; removing the affected section of the airfoil by machining; positioning a laser apparatus over the airfoil such that a focal point of said laser is about 0.10 inches to about 1 inch above the affected section and said laser forms a defocused hot zone at a distance above the affected section sufficient to prevent the airfoil from melting; introducing a replacement section material into the defocused hot zone to heat the replacement section material; causing the replacement section material to form a replacement section on the airfoil; heat treating the replacement section; restoring the dimensions of the airfoil; and heat treating the replacement section a second time.

20. (original) The method of claim 18, wherein the restoring step comprises removing excess material from the airfoil resulting from the laser cladding.

21. (original) The method of claim 18, further comprising the step of removing sulphidation by abrasive cleaning.

22. (cancelled).

23. (original) The method of claim 18, wherein the replacement section is similar in composition to the turbine blade.

24. (original) The method of claim 18, wherein the affected section is a platform of the airfoil.